

REMARKS

Claims:

New Claims 45-57 comprise the case, Claims 1-44 having been cancelled.

Claims 45 and 46 comprise a modification to previous Claims 40 and 41, now cancelled, to require "electronic devices, a plurality of said electronic devices each comprising:" to positively claim that each of a plurality of the electronic devices has "a network interface", an electronic persistent visual display", "at least one operational element", and "a processor".

The modification is commensurate with the previous Claims 40 and 41 which required "a plurality of components, at least one of said components comprising:", and with the descriptions of FIGS. 3-9 and pages 10-21. The language "configured to" has also been added when appropriate.

Claims 47-56 comprise Claims 18-27 modified to depend from the system Claim 45. Claim 57 comprises implementing Claim 45 as an automated data storage library commensurate with FIGS. 3-9 and pages 10-21.

Hence, Claims 45-57 are submitted to comprise no new matter.

35 USC § 101:

The rejection of Claims 31-39 is mooted by the cancellation of Claims 1-44.

35 USC § 102:

Claims 1-44 had been rejected under 35 USC 102(b) as being anticipated by Kayser (U.S. Patent 6,089,453).

The Examiner had called attention to Kayser as having, according to the Examiner, an "electronic device 20" with a "nonvolatile memory (Fig. 19a, 150)", "an electronic visual display (156)", "at least one operational element (158)" and "a processor (146)". The Examiner also stated that "Kayser teaches a system (Fig. 2) comprising: a network (communication network, 27); and a plurality of components (20), at least one of said components comprising: a network interface (31) to said network (27)".

However, Applicants' invention and claims comprise an entirely different direction for employing "an electronic persistent visual display" than Kayser, a direction that Applicants respectfully submit is patentable over Kayser.

The above discussion of a nonvolatile memory and electronic visual display by Kayser relates to a type of electronic visual display. Kayser uses the nonvolatile memory and display as "electronic display tags for displaying pricing and product information for products in stores or warehouses." (Abstract, lines 1-3). A main distribution loop and branch loops distribute the information signals for the tags, and a display circuit within each display tag generates a display in response to the information signals. (Column 4, lines 25-45).

Applicants' claims instead recite (Claim 45) "A system comprising:

"a network; and

"electronic devices, a plurality of said electronic devices each comprising:

"a network interface to said network;

"an electronic persistent visual display mounted at said electronic device, said electronic persistent visual display having an input, said electronic persistent visual display configured to provide a visual label display which persists indefinitely, until updated by an input signal at said input;

"at least one operational element; and

"a processor configured to operate said at least one operational element;

"said processor configured to store information regarding said electronic device; and

"said processor configured to, in response to a predetermined state, provide an update input signal at said electronic persistent visual display input, said update input signal comprising selected said information regarding said electronic device stored by said processor, said update signal to update said visual label display of said electronic persistent visual display." (Emphasis added).

A) 1) Kayser teaches away from Applicants' "operational element" operated by a processor.

Kayser's element 158 is a display driver and is NOT an "operational element" of an "electronic device" operated by a "processor configured to operate said at least one operational element" of Applicants' claims. Kayser's processor 146 is NOT configured to operate an operational element. Rather, Kayser's processor 146 is "for maintaining an assigned display set on an LCD display 156 and communicating with the area controller 31. The display 156 is preferably driven using a conventional two-row display driver circuit 158 controlled by the CPU 146." (Column 66, lines 19-23)

An "operational element" of an "electronic device" is defined in Applicants' specification, e.g. at page 8, line 7 to page 9, line 16, as "an electronic device which implements specialized functions or service. Examples of electronic devices are disk drives, tape drives, controllers, node cards, processor boards, electronic assemblies, modems, answering machines, medical drug infusion systems, and storage automation products to control accessors or provide communications. The electronic device is illustrated with a computer processor 102, optional RAM (Random Access Memory) 103, a rewritable nonvolatile memory 104, device specific circuits 101 and an I/O interface 105, any or all of which may comprise "elements" of the electronic device 100. Herein, the device specific circuits 101 comprise the operational element of the electronic device 100.

"The device specific circuits 101 provide additional hardware to enable an electronic device 100 to perform specific functions such as motor control of an accessor for an automated data storage library, operate a magnetic tape drive, etc. The device specific circuits 101 may comprise electronics that provide Pulse Width Modulation

(PWM) control, Analog to Digital Conversion (ADC), Digital to Analog Conversion (DAC), Liquid Crystal Display (LCD) controller, etc.” (Emphasis added).

It is clear that Kayser provides NO “operational element” of “each” “electronic device”. Applicants’ claimed “operational element” of an “electronic device” is NOT the display or display driver itself. Applicants’ claimed operational elements are instead separate from the displays, and Applicants’ claimed displays are of “information regarding said electronic device”.

A) 2) Kayser teaches away from Applicants’ claimed “said processor configured to, in response to a predetermined state, provide an update input signal at said electronic persistent visual display input, said update input signal comprising selected said information regarding said electronic device stored by said processor”. (Emphasis added).

Kayser uses the nonvolatile memory and display as “electronic display tags for displaying pricing and product information for products in stores or warehouses.” (Abstract, lines 1-3).

Applicants’ teach that “electronic devices **100** have information associated with them, such as part numbers, serial numbers, engineering change levels, computer readable program code or firmware levels, etc., that is subject to change. This information is commonly stored by the processor **102** of the device or in the nonvolatile memory **104**, *** Referring to FIGS. 1 and 2, the processor **102** operates the at least one operational element **101**, and, the processor, in response to a predetermined state, provides an update input signal at the electronic persistent visual display input **111** of FIG. 1, or the electronic persistent visual display input **142** of FIG. 2. The update input signal comprises information selected from the information regarding the electronic device stored in the nonvolatile memory **104**, and/or stored by the processor **102**. The update signal updates the visual label display **110** of the electronic persistent visual display **108**, **112**. Thus, the use of preprinted or handwritten paper or plastic labels is avoided.” (Page 11, line 16 to page 12, line 2). (Emphasis added).

Thus, Kayser teaches distributing prices for display, teaching away from Applicants' claimed providing information regarding each of particular electronic devices where the display is part of the particular electronic device.

A) 3) Kayser teaches away from Applicants' claimed "system comprising: a network; and electronic devices, a plurality of said electronic devices each comprising: a network interface to said network; *** and a processor *** said processor configured to, in response to a predetermined state, provide an update input signal at said electronic persistent visual display input, said update input signal comprising selected said information regarding said electronic device stored by said processor". (Emphasis added).

Kayser teaches a distribution system with a main distribution loop and branch loops which distribute the information signals for the tags, and a display circuit within each display tag that generates a display in response to the information signals. (Column 4, lines 25-45).

Applicants' invention and claims comprise an entirely different direction for employing "electronic persistent visual displays" than Kayser.

Applicants' claims instead are to a system which comprises a network and electronic devices, "a plurality of said electronic devices each comprising: a network interface to said network ***". Rather than display only distributed information as Kayser, Applicants' "electronic devices" "each" comprises a processor "configured to store information regarding said electronic device; and said processor configured to, in response to a predetermined state, provide an update input signal at said electronic persistent visual display input, said update input signal comprising selected said information regarding said electronic device stored by said processor, said update signal to update said visual label display of said electronic persistent visual display." (Claim 45) (Emphasis added).

A) Summary:

Applicants respectfully submit that Claim 45 and all claims that depend therefrom (Claims 46-57) are patentable over Kayser. Applicants therefore respectfully request allowance of Claims 45-57 thereover.

B) Dependent Claims:

Claim 46 recites "wherein said predetermined state of said processor of said at least one electronic device comprises a power-on and/or reset of said electronic device", whereas Kayser teaches away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 47 recites "wherein said processor of each of said plurality of electronic devices comprises a programmable computer processor and said predetermined state of said processor comprises completion of an update to computer readable program code of said programmable computer processor", whereas Kayser teaches away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 48 recites "wherein said processor of each of said plurality of electronic devices additionally is configured to update said information regarding said electronic device stored by said processor with status information related to said update to computer readable program code of said programmable computer processor, and said processor update signal selected information comprises at least said status information" whereas Kayser teaches away from Applicants' updating information regarding the electronic device as discussed above.

Claim 49 recites "wherein said processor of each of said plurality of electronic devices comprises programmable logic and said predetermined state of said processor comprises completion of an update to said programmable logic", whereas Kayser teaches

away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 50 recites "wherein said processor of each of said plurality of electronic devices additionally is configured to update said information regarding said electronic device stored by said processor with a version number of said update to said programmable logic, and said processor update signal selected information comprises at least said version number of said update to said programmable logic", whereas Kayser teaches away from Applicants' updating information regarding the electronic device as discussed above.

Claim 51 recites "wherein said predetermined state of said processor comprises a state achieved in response to an indication of completion of an engineering change to said electronic device", whereas Kayser teaches away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 52 recites "wherein said processor of each of said plurality of electronic devices additionally is configured to update said information regarding said electronic device stored by said processor with an engineering change number of said engineering change to said electronic device, and said processor update signal selected information comprises at least said engineering change number of said engineering change", whereas Kayser teaches away from Applicants' updating information regarding the electronic device as discussed above.

Claim 53 recites "wherein said predetermined state of said processor comprises a state achieved in response to an indication of a change to said at least one operational element", whereas Kayser teaches away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 54 recites "wherein said processor of each of said plurality of electronic devices additionally is configured to update said information regarding said electronic device stored by said processor with status information related to said change to said at least one operational element, and said processor update signal selected information comprises at least said status information", whereas Kayser teaches away from Applicants' updating information regarding the electronic device as discussed above.

Claim 55 recites "wherein said predetermined state of said processor comprises a state achieved in response to a signal received at said network interface", whereas Kayser teaches away from Applicants' updating a display in response to a predetermined state of the processor at each electronic device as discussed above.

Claim 56 recites "wherein said processor of each of said plurality of electronic devices additionally is configured to select said information stored by said processor in accordance with said signal received at said network interface", whereas Kayser teaches away from Applicants' updating a display wherein the selection is made by the processor at each electronic device as discussed above.

Claim 57 recites "wherein said system comprises an automated data storage library, and wherein said electronic devices comprise electronic devices of said automated data storage library", whereas Kayser is unrelated to an automated data storage library.

B) Summary:

Applicants respectfully submit that each dependent claim (Claims 46-57) is patentable over Kayser. Applicants therefore respectfully request allowance of Claim 45 and of Claims 46-57 thereover.

Cited Materials

Applicants respectfully submit that Claims 45-57 are patentable over the materials cited by the Examiner under 35 U.S.C. 102 and 35 U.S.C. 103. The Examiner cited USPN 5,632,010, Briechle et al.; and USPN 4,962,466, Revesz et al.

Accordingly, Applicants believe the present invention distinguishes over the cited patents and respectfully requests that the Examiner allow Applicants' Claims 45-57, and pass the case to issue.

Respectfully submitted,

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